AMENDMENTS IN THE SPECIFICATION:

At page 1, before paragraph 1, please change to read as follows:

~~SPECIFICATION~~

~~TITLE OF THE INVENTION~~

TRANSMITTING APPARATUS

BACKGROUND OF THE INVENTION

At page 1, paragraph 2, starting on line 16, please change to read as follows:

Synchronous optical networks (SONET), which utilize optical communication that is capable of high-capacity transmission, have become widespread owing to an increase in communication traffic. With SONET, user data undergoes multiplexed transmission in accordance with a Synchronous Transport Signal (STS-N) frame (where N represents an integer) format. Fig. 12 is a diagram showing the structure of a ~~51 .84 Mbps~~ 51.84 Mbps STS-1 frame. The frame has 9 x 90 bytes overall (810 bytes/125 μs), of which 3 x 9 bytes constitute overhead OH and 87 X 9 bytes constitute an STS payload STS-1 SPE (Synchronous Payload Envelope). Nine bytes of the payload constitute path overhead PON, and VT (Virtual Tributary) packets of V multiple channels are multiplexed onto the remaining 86 X 9 bytes. With SONET, frame formats other than the STS-1 frame format mentioned above include STS-3 (155.52 Mbps), STS-12 (622.08 Mbps) and STS-48 (2.488 Gbps). These frame formats can be used in appropriate fashion by optical transmission lines.

At page 10, last paragraph, starting on line 21, please change to read as follows:

Figs. 22A and 22B are ~~Fig. 22 is a diagram~~ diagrams useful in describing VT squelch and illustrates a BLSR configuration in EAST (clockwise in Fig. 22A) and WEST (counter-clockwise in Fig. 22A) directions. The BLSR has a working channel and a protection channel in the EAST and WEST directions. Fig. 22A illustrates a case where a signal (VT signal) on a prescribed VT channel enters from a node A, passes through a node D and exits from a node B. The node ID of node B, which is the node of interest, is made 0, while the other nodes are assigned node IDs 1, 2 and 3 in ascending order in the WEST direction starting from 0. Each node has a squelch table (Fig. 22B) used when determining whether to perform VT squelch (i.e., whether to insert the AIS signal). Connection-destination node IDs for the EAST and WEST directions are recorded in the table. Specifically, the source node of a VT signal that has been physically connected to the EAST side of the node of interest is set in an East Side column of the table, and the source node of a VT signal that has been physically connected to the WEST side of the node of interest is set in a West Side column of the table. In the example of Fig. 22A, the source node of the VT channel input and dropped on the EAST side of the node B of interest is node A (ID = 2). Accordingly, the node ID "2" is set in the East Side column of the squelch table of the above-mentioned VT channel. Since there is no input from the WEST side, "0" is set in the West Side column. If multiple failures occur at points E, F, node B can no longer detect the VT signal of node ID 2 as a far-end node on the VT channel. As a result, it is judged that an unrescuable failure has occurred and squelch is applied to this VT channel. That is, a Path-AIS (P-AIS) is inserted into the VT signal of this VT channel.

At page 26, last paragraph, starting on line 16, please change to read as follows:

According to the present invention, NUT information setting registers for n/4-number of channels, i.e., NUT information setting registers only for working channels in the first direction, are provided, and NUT information for the working channels in the first direction is set in these registers. The NUT information is shared as NUT information of (1) the working channel in the first direction, (2) the protection channel in the first direction, (3) the working channel in the second direction and (4) the protection channel in the ~~fourth~~ second direction. In a case where enhance NUT is supported, NUT information setting registers only for n/2-number of channels, i.e., for the working channel in the first direction and the protection channel in the first direction, are provided, the NUT information for the working channel in the first direction and the NUT information for the protection channel in the first direction is set in these registers, the NUT information for the working channel in the first direction is shared as NUT information for the working channels in the first and second directions, and the NUT information for the protection channel in the first direction is shared as NUT information for the protection channels in the first and second directions. If this arrangement is adopted, the size of the apparatus can be reduced by reducing the number of registers for setting the NUT information.

At page 34, first paragraph, starting on line 1, please change to read as follows:

The STS cross-connect unit 100 includes (1) STS-signal line switching units 111, 112 for performing cross-connect at the STS level; (2) an STS ~~line~~ path terminating unit 113 for performing STS termination processing and separating an STS signal into VT signals; (3) an STS path protection switch 114 for performing STS path protection; (4) an STS multiplexer (STS MUX) 115 for multiplexing, into an STS signal, VT signals cross connected at the VT level; (5)

an STS-signal line switching unit 116 for cross connecting, at the STS level, the STS signal output from the STS multiplexer 115; and (6) and a selector (SEL unit) 117 for selecting one of the STS signals cross connected by the STS-signal line switching unit 111 and STS-signal line switching unit 116.

At page 41, last paragraph, starting on line 18 and continuing to page 42, second paragraph, starting on line 6, please change to read as follows:

If an STS channel accommodated by the OC-48 or OC- 12 BLSR ring (namely a channel that is the object of rescue) is not a NUT channel, then the channel is a channel rescued by the BLSR. In case of OC-48, STS-1 #1 to #24 on the EAST side (first direction) are working channels, STS-1 #25 to #48 on the EAST side (first direction) are protection channels, STS-1 #1 to #24 on the WEST side (second direction) are working channels and STS-1 #25 to #48 on the WEST side (second direction) are protection channels. If STS-1 #1 to #3 on the EAST side are set as NUT channels by the NUT information, as shown in Fig. 4, then STS-1 #25 to #27 on the EAST side and STS-1 #1 to #3, STS-1 #25 to #27 on the WEST side also become NUT channels. Though the foregoing is the case for ~~0-48~~ OC-48, the same will hold also in the case of OC-12.

Thus, if the BLSR type is OC-12 ring #1 or OC-12 ring #2, it will suffice to set NUT information for the working channels STS-1 #1 to #6 on the EAST side. If the BLSR type is an OC-48 ring, it will suffice to set NUT information for the working channels STS-1 #1 to #24 on the EAST side. To accomplish this, the NUT information setting register 231 in Fig. 2 is provided with registers for setting a total of 36 items of NUT information and sets NUT information of working channels #1 to #6 on the EAST side of OC-12 ring #1, NUT

information of working channels #1 to #6 on the EAST side of OC-12 ring #2 and NUT information of working channels #1 to #24 on the EAST side of the OC-48 ring. In actuality, four 16-bit registers are provided, as shown in Fig. 5 (shown as D15-0), and NUT information of each BLSR type is set in respective ones of these registers.

At page 46, last paragraph, starting on line 22, and continuing on page 47, first paragraph, line 9, please change to read as follows:

Further, in accordance with the present invention, BLSR determination can be carried out using NUT information linked to channels (channels that are the object of BLSR rescue) accommodated by the BLSR and BLSR-type setting information indicative of the BLSR transmission rate. This makes it possible to reduce the number of registers for setting the BLSR. In addition, the number of channels for BLSR determination processing can be reduced and it is possible to reduce BLSR determination circuitry and mask processing circuitry for VT squelch. If the maximum VT access processing capability of the apparatus is 10 Gbps (= 192 STS-1 channels), a comparison of the number (N) of BLSR information setting registers in the prior art and number (L) of BLSR-type registers in the present invention will be as indicated in Fig. 7B. In addition, according to the present invention, it is possible to reduce the number of SQL activate processing channels. In the comparison example shown in Fig. 7C, if the maximum VT access processing capability of the apparatus is 10 Gbps, a comparison of the number of SQL activate processing channels (NxVT) in the prior art and the number of SQL activate processing channels (MxVT) in the present invention will be as indicated in Fig. 7C.

At page 55, paragraph 3, starting on line 16, please change to read as follows:

Meanwhile, data that enters from the upper left of Fig. 10 is an STS signal having a maximum capacity of 10 Gbps (for 192 STS-1 channels) selected as VT-accessed STSs in the STS switch (not shown) of the preceding stage. This 10-Gbps signal has a form obtained by the 16-channel multiplexing of an ~~SGS-12~~ STS-12 signal, for example. The 16 channels of STS-12 are split into eight channels each and eight channels are input to the VT switch 300 and eight channels to the VT switch 400.

At page 56, paragraph 2, starting on line 7, please change to read as follows:

The VT signals following pointer replacement are delivered to a VT line switching unit 308 (408) in this VT switch and to a VT line switching unit 408 (308) in the other VT switch. In order to reduce the number of interface signals, the signal that will be output from this other VT switch 400 (300) is multiplexed into the STS-12-signal format by an STS MUX 309 (409), after which the signal is output. The other VT switch 400 (300) that receives this STS signal uses an STS DMUX 410 (310) to demultiplex the ~~STS-12-signal~~ STS-12 signal into VT signals, after which the VT signals are input to the VT line switching unit 408 (308).